<u>**Amendments to the Claims**</u>:

This listing of claims will replace all prior versions, and listings, of claims in the application.

<u>**Listing of Claims**</u>:

1.   (Currently Amended) A display device, for carrying out image display on an active-matrix OLED display panel by controlling current flowing in ~~display~~ OLED elements for ~~each~~ a plurality of pixels based on image data, comprising:

display setting circuitry including a multiplier and an adder for setting a relationship between image data and current values for current flowing in all ~~display~~ OLED elements in response to an input adjustment signal, to set contrast or brightness;

estimation circuitry for estimating total panel current flowing in all of the plurality of pixels when carrying out display for the display panel based on the image data; and

current control circuitry for controlling actual panel current by correcting the set contrast or brightness based on the panel current estimated by the estimation circuitry, so that the actual panel current does not exceed a selected maximum value.

2.   (Currently Amended) The display device of claim 1, wherein, when the total panel current estimated by the estimation means does not exceed a specified set value, correction of contrast or brightness by the current control circuitry is not effected.

3.   (Cancelled)

4.   (Currently Amended) The display device of claim ~~3~~1, ~~wherein the current control means stores~~ further comprising a nonvolatile memory for storing ~~a~~ one or more coefficients ~~defining a relationship between the estimated panel current required in correction of contrast or brightness, and correction of contrast or brightness,~~ adapted for use in correction of contrast or

brightness, and wherein the current control circuitry uses the one or more coefficients to corrects the contrast or brightness ~~using the coefficient~~.

5. (Currently Amended) The display device of claim ~~3~~1, wherein the current control ~~means~~ circuitry controls contrast based on the following equation:

$$C' = C - (C + B/(k \bullet Lw0) - a) \bullet (Ical-Icalx)/(Imax-Icalx),$$

where C is contrast setting value, B is brightness setting value, Lw0 is maximum luminance at initial setting time (C=1, B=0), a is luminance at the time panel current becomes IMax, when displaying a totally white surface, divided by Lwo, Ical is panel current when subjecting original image data values to linear conversion, Imax is maximum current flowing in the panel, Icalx is the Ical value (can be arbitrarily set) for the point at which maximum luminance begins to lower, and k is gamma correction input data divided by luminance.

6. (Currently Amended) The display device according to claim 1, wherein the estimation ~~means~~ circuitry estimates panel current based on the following equation:

$$I = Rframe/Er + Gframe/Eg + Bframe/Eb,$$

where, Rframe is the sum total of R pixel data for one frame, Gframe is the sum total of G pixel data for one frame, Bframe is the sum total of B pixel data for one frame, Er is R luminance divided by current flowing in one R pixel, Eg is G luminance divided by current flowing in one G pixel, and Eb is B luminance divided by current flowing in one B pixel, wherein R, G, and B respectively means to Red, Green and Blue.

7. (Cancelled

8. (Original) The display device of any one of claim 1, wherein the estimation means estimates total current based on the sum or average of image data for a single image frame or a plurality of image frames.